



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

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Fact Sheet

Trichloroethylene Detections in Private Wells

Barton Road and O'Connell Way, Stow, Massachusetts

November 7, 2017

Background

On October 12, 2017, the Nashoba Associated Boards of Health (Nashoba BOH) provided MassDEP with results of private well sampling previously conducted by residents for three addresses with detections of the volatile organic compound (VOC) trichloroethylene (TCE) located on Barton Road and O'Connell Way in Stow, Massachusetts. The concentrations of TCE reported to MassDEP on October 12, 2017 by Nashoba BOH ranged from 7.68 µg/L to 31 µg/L. The Massachusetts drinking water standard for TCE is 5.0 µg/L.

What is TCE and where is it found?

TCE is a chlorinated VOC that is commonly used as a solvent to remove grease from metal parts. It may also be present in some consumer products including glues, paint removers, spot removers, rug cleaning liquids, paints, and metal cleaners.

More information on MassDEP guidance for sites with TCE contamination can be found at <https://www.mass.gov/lists/chemical-research-standards#trichloroethylene>

Why should I be concerned about exposure to TCE?

TCE has the potential to affect the developing fetus, irritate the respiratory system and skin, and cause light-headedness, drowsiness, and headaches. Repeated exposure to TCE has been associated with effects in the liver, kidneys, immune system, and central nervous system. Additionally, TCE has the potential to cause cancer in humans. The health effects from TCE depend on who is exposed, the amounts of TCE, and the length of their exposure. If you have concerns about your health status, you should talk to your family doctor and/or an occupational doctor familiar with chemical exposures (see, for example, the list at

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http://www.aoec.org/content/directory_MA.htm). When you meet with them, provide a copy of your TCE sampling results and this factsheet.

More information on TCE health effects and the basis of the MassDEP guidance values can be found in "US EPA Trichloroethylene Toxicity Values and Office of Research and Standards Recommendations Regarding Remediation Targets and Timeframes to Address Potential Developmental Risks" and other information on MassDEP's website at <https://www.mass.gov/lists/chemical-research-standards#trichloroethylene>.

What has MassDEP done in response to TCE detected in private wells?

Immediately upon receiving the results from Nashoba BOH, MassDEP identified properties with private wells within 500 feet of any detection of TCE in private drinking water wells and collected owner and contact information, coordinating with Nashoba BOH and the local Stow and Hudson Boards of Health. MassDEP initially identified 30 properties with a private well likely within 500 feet of the three homes with the initial TCE detections. Once identified, MassDEP contacted private well owners and coordinated sampling with a MassDEP state-funded cleanup contractor under the direction of MassDEP. Samples were analyzed for VOCs using EPA Method 524.2 for drinking water.

MassDEP sampled 13 private wells on Friday, October 20, 2017. Of the thirteen, four additional residential wells were identified with TCE at concentrations below the drinking water standard. Following receipt of these laboratory results, MassDEP expanded the sampling effort an additional 500 feet from any detection. To date, MassDEP has sampled a total of 35 private wells on properties along Barton Road, O'Connell Way, and Davis Road in Stow, and one property on Hunter Avenue in Hudson.

An additional 14 properties on Barton Road, Davis Road, and Kingland Road have been identified for private well sampling within 500 feet of the latest sampling results reported to MassDEP on November 3rd. MassDEP will be contacting property owners within the next week to arrange sampling of their wells.

What are the results of the MassDEP sampling of private wells?

Of the 35 private drinking water wells sampled to date, MassDEP has identified 6 private wells with TCE concentrations exceeding the Massachusetts Drinking Water Standard of 5 µg/l, 6 private wells with TCE concentrations below the standard, and 23 private wells with no TCE concentrations detected above the laboratory reporting limit of 0.5 µg/l.

What is MassDEP doing about the TCE detections?

MassDEP immediately notified property owners of the results of the private well sampling and will continue to coordinate with Nashoba BOH and local Boards of Health. For private wells with concentrations above the 5.0 µg/L regulatory limit, MassDEP has offered bottled water to

those affected residents while MassDEP, Nashoba BOH, and the local Boards of Health investigate potential sources of the TCE.

What are MassDEP's next steps?

MassDEP has begun its investigation into potential sources of the TCE contamination in groundwater in the area. Specifically, we have identified already known MassDEP cleanup sites located in Stow and Hudson and will be reviewing those files. When providing property owners their private well sampling results, MassDEP has requested information about each well installation, particularly depth to bedrock and well depth, in an effort to determine the extent of TCE contamination in the area and help identify the likely source. This investigation will take some time. Following our investigation, if MassDEP does identify a likely source of the contamination, MassDEP may issue one or more Notices of Responsibility and require further assessment and remedial actions under the MCP.

Should I test my private well?

Because private wells in Massachusetts are regulated at the local level, you should first contact your local Board of Health for your town's private well testing requirements. For more information about private wells, including additional water quality testing recommendations, you should refer to the [MassDEP Private Well Guidelines](#). Other information, such as the listing of state certified laboratories, is also available through the web site.

Who should I call if I have questions about MassDEP's investigation?

If you have questions about well sampling and sampling results, you may contact Andrea Briggs, Deputy Regional Director, in MassDEP's Central Regional at (508)767-2734.